

What is claimed:

1. A toothbrush comprising:

5 a handle;

a toothbrush head distal to the handle; and

10 a multiplicity of first type bristles, each of said  
bristles having a diameter ranging from about 0.25 mm to  
about 0.60 mm and being individually embedded in said  
toothbrush head; said bristles being mutually spaced  
15 apart from one another by a distance ranging from about  
0.5 times to about 10 times the diameter of the  
bristles.

2. A toothbrush according to Claim 1 further  
comprising at least one dense tuft of bristles.

20 3. A toothbrush according to Claim 1 wherein:  
the first type bristles comprise at least one bristle  
having a diameter from about 0.35 mm to about 0.60 mm  
and at least one bristle having a diameter of from about  
0.25 mm to about 0.35 mm.

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4. A toothbrush according to Claim 3 wherein the toothbrush head further comprises sections wherein:

the bristles are arranged such that at least one section of the toothbrush head contains bristles having diameters from about 0.35 mm to about 0.60 mm, while at least one section of the toothbrush head contains first type bristles having diameters ranging from about 0.25 mm to about 0.35 mm.

5. A toothbrush comprising:

a handle;

a toothbrush head distal to the handle;

at least one individually embedded second type bristle having a diameter of from about 0.08 mm to about 0.35 mm and a free length of from about 7 mm to about 16 mm; and

at least one third type bristle having a diameter of from about 0.15 mm to about 0.40 mm and a free length of from about 5 mm to about 14 mm; wherein the trim difference between the second type bristle and the third type bristle ranges from about 0.5 mm to about 3 mm.

6. A toothbrush according to Claim 5 further comprising at least one section wherein:

the free lengths of the bristles within at least one section of the toothbrush head are varied such as to create a sawtooth cut profile.

7. A toothbrush according to Claim 5 further comprising at least one section wherein:

the free lengths of the bristles within at least one section of the toothbrush head are varied such as to create a wave cut profile.

8. A toothbrush according to Claim 5 further comprising at least one section wherein:

the free lengths of the bristles within at least one section of the toothbrush head are varied such as to create an arc cut profile.

9. A toothbrush according to Claim 5 further comprising first sections and second sections wherein:

the first sections comprise second type bristles and the second sections comprise third type bristles and each of the first and second sections comprises from 1 to 7 rows of bristles.

10. The toothbrush according to Claim 9 wherein:

the first sections are alternately spaced with the  
second sections.

11. A toothbrush according to Claim 5 wherein:

the second and third type bristles are arranged to  
create an alternating wave pattern.

12. A toothbrush according to Claim 5 wherein:

the second and third type bristles are arranged to  
create a pattern of a circle of second type bristles  
surrounding the third type bristles along a row.

13. A toothbrush according to Claim 5 wherein:

the second and third type bristles are arranged to  
create a pattern of a hexagon of second type bristles  
surrounding a third type bristle.

14. A toothbrush according to Claim 5 further comprising:

5 at least one fourth type bristle having a diameter of from about 0.15 mm to about 1.0 mm and a free length of from about 9 mm to about 15 mm arranged about the periphery of the toothbrush head.

15. A toothbrush according to Claim 14 wherein:

10 the toothbrush contains a plurality of fourth type bristles arranged along the periphery of the toothbrush head; and

15 the height of the fourth type bristles alternates along the periphery of the toothbrush head to create an arc shaped form.

16. A toothbrush according to Claim 14 wherein:

20 the toothbrush contains a plurality of fourth type bristles arranged along the periphery of the toothbrush head; and

25 the height of the fourth type bristles alternates along the periphery of the toothbrush head to create a sawtooth shaped form.

17. A toothbrush according to Claim 14 wherein:

the toothbrush contains a plurality of fourth type  
bristles arranged along the periphery of the toothbrush  
head; and

the height of the fourth type bristles alternates along  
the periphery of the toothbrush head to create a wave  
shaped form.

18. A toothbrush according to Claim 5 wherein:

the toothbrush contains a multiplicity of bristle  
diameters within the toothbrush head.

19. A toothbrush according to Claim 5 wherein:

the toothbrush contains a multiplicity of bristle  
spacing within the toothbrush head.

20. A toothbrush according to Claim 5 further  
comprising:

at least one dense tuft of bristles.

21. A toothbrush comprising:

a handle;

5 a toothbrush head distal to the handle, the toothbrush head comprising a periphery and a distal end; and

10 bristles which are individually embedded in the toothbrush head and mutually spaced apart from one another by a distance from about 0.5 times to about 10 times the diameter of the bristles;

15 wherein the bristles comprise second type bristles having a diameter of from about 0.08 mm to about 0.35 mm and a free length of from about 7 mm to about 16 mm; third type bristles having a diameter of from about 0.15 mm to about 0.40 mm and a free length of from about 5 mm to 14 mm; fourth type bristles having a diameter of from about 0.15 mm to about 1.0 mm and a free length of from about 9 mm to about 15 mm arranged along the periphery of the toothbrush head; and a dense tuft of bristles at the distal end.

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22. A toothbrush comprising:

a handle;

5 a toothbrush head distal to the handle;

a multiplicity of first type bristles, each of said  
bristles having a diameter ranging from about 0.25 mm to  
about 0.60 mm and being individually embedded in said  
toothbrush head; said bristles being mutually spaced  
apart from one another by a distance ranging from about  
0.5 times to about 10 times the diameter of the  
bristles; and

15 at least one dense tuft of bristles.

23. A toothbrush according to Claim 22 wherein:

20 the first type bristles comprise at least one bristle  
having a diameter from about 0.35 mm to about 0.60 mm  
and at least one bristle having a diameter of from about  
0.25 mm to about 0.35 mm.

25 24. A toothbrush according to Claim 22 wherein the  
dense tuft of bristles has a shape selected from the  
group consisting of circle, square, oval, triangle,  
elongated rectangle, polygonal, half-moon, horseshoe,  
bar, stars, arc and combinations thereof.

1 in = 25.4 mm



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